

REMARKS

The Office Action of June 21, 2005 has been carefully studied. The following paragraphs correspond to the order of the paragraphs of the Office Action:

1. The Abstract of the Disclosure is amended so as to remove "legal phraseology".
2. Claims 16-17 are amended so as to incorporate a method step. It is appreciated that these claims will subject to a restriction requirement which will permit Applicants' to file a divisional application under 35 U.S.C. 121. Accordingly, Applicants respectfully request a formal restriction requirement for the record and in response to such a formal restriction requirement, Applicants grant the Examiner the authority to cancel claims 16 and 17.

3., 4. and 5. Claims 1-17 were rejected under 35 U.S.C. 103(a) over Thakkar et al. in combination with Erickson. Upon careful review of these references, Applicants respectfully submit that they do not establish a prima facie case of unpatentability under 35 U.S.C. 103, particularly because the combined teachings of these references do not teach a particular claimed feature of Applicants' invention. This feature provides a recycle of at least some of the liquid effluent from the absorber (5) to be joined with the feedstock and the combined effluent subjected to refrigeration before being recycled into the cold separator (D1). This can be easily discerned by the figure in the application which shows a conduit 3 leading from the bottom of the absorber where it is joined with conduit 1 which provides the feedstock, with the resultant mixture passing through refrigerating means RFI and then through conduit 4 into the cold separator D1. For purposes of clarification, it is seen that claim 1 is now amended for purposes of clarity, among other changes to transpose the "at least one means for recycling..." to --after the step of cooling the mixture of feedstock and liquid effluent withdrawn from the bottom of the absorber--. The various means are intended to include the conduit for establishing the necessary communication between the absorber to the mixing means and from the mixing means to the cooling means and from the cooling means to the recycling means.

The feature of recycling the cooled mixture of feedstock and effluent from the absorber to the cold separator results in an improvement in the recovery of light hydrocarbons as well as in the recovery of a hydrogen-enriched gas, noting Applicants' specification on page 3, lines 8-16,

page 7, lines 9-13 and page 9, lines 1-3.

With respect to the cited references, Thakkar et al. (6,379,533) shows in the Figure, separator 38 and absorber 48. Instead, liquid effluent from absorber 48 is joined with effluent 14 from cold flash zone 13. Furthermore, feedstock 1 to the left of the drawing is joined with liquid effluent from hydrocracker 29 -- which is not an absorber and the resultant mixture is fed into a denitrofication and desulfurization zone 3. Accordingly, this reference does not suggest Applicants' invention.

As for the teachings of Erickson, it is first respectfully submitted that it is not seen how this reference cures the basic deficiency of the Thakkar reference which does not suggest the essential mixing, cooling and recycling steps of Applicants' invention. Furthermore, because of the complexity of the dynamic processes in each of the references, it is respectfully submitted that there would be no suggestion to one of ordinary skill in the art to arbitrarily take any of the teachings of Erickson and in some way change the system of Thakkar et al. in order to arrive at a new system. As the Examiner knows, if there is a change in a dynamic continuous highly complex system, it may result in untoward results. Thus, Erickson does not realistically provide any motivation to incorporate any of the teachings of Erickson into the Thakkar et al. system.

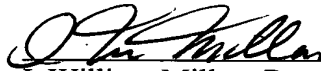
With respect to Applicants' dependent claims, it is respectfully submitted that they add another level of unobviousness, but in view of the unobviousness of claim 1 over the references, Applicants will not discuss the dependent claims at this time but reserve the right to rebut same at a later date, if ever necessary. As to the amendments to the dependent claims, claim 3 is amended in line 2 by adding the expression "a portion of" which is in accordance with Applicants' specification, page 9, 6th line from the bottom "partly recovered". Claim 8 is also amended for purposes of clarity and to provide the means for recycling the liquid phase from the fractionation column (C2) to absorber (C1). Claims 13 and 15 are also amended so as to correct obvious errors. Finally, page 8 of the specification is corrected on line 4 by changing "absorber D1 to absorber C1" since D1 is the cold separator and C1 is the absorber.

In view of the above remarks, favorable reconsideration is courteously requested.

However, if there are any remaining issues which can be expeditiously resolved by a telephone conference, the Examiner is courteously invited to telephone Counsel at the number indicated below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



I. William Millen, Reg. No. 19,544
Attorney/Agent for Applicant(s)

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

Attorney Docket No.: PET-1984

Date: September 21, 2005
IWM:pdv